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U.S. Market Factors Squeeze Turbine Vendors For 2011

Manufacturers are refocusing operations and looking at additional markets to hedge against tepid times.

BY MARK DEL FRANCO

The U.S. wind market is most likely headed for a slowdown next year, as low natural-gas prices and the uncertainty surrounding federal policy will make it difficult to equal – much less surpass – the growth the wind industry had enjoyed through 2009. And, in turn, many of the major turbine manufacturers are bolstering development elsewhere, such as in China, Europe or South America.

According to the American Wind Energy Association (AWEA), the U.S. market added just 395 MW of capacity in the third quarter of 2010, making it the lowest quarter since 2007. Year-to-date installations stood at 1,634 MW, down 72% compared with 2009, and the lowest level since 2006. In 2010, according to AWEA, wind projects in the U.S. are being installed at half of the rate as in Europe and one-third of the rate as in China.

Looking forward, Chicago-based research firm MAKE Consulting says U.S. turbine sales could fall by as much as 23% over the next five years. In fact, many industry participants have already been feeling the effects of a market slowdown.

"Over the past 12 months, industry orders are down significantly, and the outlook for new projects is under pressure due to reduced power demand, lower natural-gas prices, transmission constraints and the lack of a long-term renewable energy policy," says Dan Shreve, a principal at MAKE Consulting.

Naturally, a slowdown in the world's largest wind market affects all turbine manufacturers, forcing some to shift focus to other areas, such as China, the world's second-largest wind market.

GE, which accounted for 40% of all new capacity in the U.S. in 2009, has steadily been refocusing its global wind business, including a renewed focus on China.

For example, in October, GE entered into a joint venture with China-based Harbin Power Equipment Co. to manufacture and supply turbines for China's onshore

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The 99 MW Crane Creek Wind Farm (pictured at left) was developed by California-based enXco before being purchased by utility Wisconsin Public Service (WPS) to help WPS meet Wisconsin's renewable portfolio standard. The project, which achieved commercial operation in December 2009, represents the most recent wind project built in Iowa.

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and offshore wind markets. Harbin, which has been manufacturing gas turbines for GE since 2004, will own 51% of the joint venture, with GE owning 49%.

For GE, the venture in China – the world's fastest-growing wind market – comes at a time when it sees the U.S. market under pressure.

"The U.S. wind industry is in the middle of a reset," says Matt Guyette, GE's wind development strategy leader, adding that the roller-coaster cycle of wind capacity installations over the past few years has created a poor environment for long-term investment decisions, particularly in manufacturing.

What's more, GE says it is well-insulated against a prolonged U.S. slump because it has enjoyed success globally in Brazil, where it has secured more than 1 GW of new orders in three recent wind auctions, as well as in Thailand, Turkey and Romania.

Despite orders in other markets, Shreve says those orders fail to compensate for what GE has traditionally done in the U.S.

"A fundamental downturn in the U.S. market, coupled with explosive growth in China, will have a greater impact on GE's global market share than [on] other manufacturers," he explains, noting that GE's order intake in Europe and China is limited. Also, competition in the Chinese market is fierce, as leading players such as Goldwind, Sinovel and Dongfang are well established.

GE will still have a large presence in the U.S. market, as evidenced by its $1.4 billion contract with Caithness Energy to supply turbines and maintenance services for the 845 MW Shepherds Flat wind farm in Oregon. GE also hopes to compete for turbine orders in the growing North American offshore wind market.

Another player that stands to lose is Carpinteria, Calif.-based Clipper Windpower, whicb manufactures the 2.5 MW Liberty turbine. According to Shreve, virtually all of Clipper's

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global sales are tied to the U.S. market. Clipper and parent United Technologies Corp. did not respond to requests for interviews.

While a slowdown will affect all manufacturers, some will be less affected. For instance, Siemens Energy has growing business units in the European and North American offshore markets, as well as strong Canadian orders.

"We don't foresee a slowdown for Siemens in 2011," reports Jan Kjaersgaard, vice president and general manager at Siemens Energy's North American wind power business. "Siemens has seen year-on-year installation growth in North America."

Kjaersgaard says Siemens holds offshore contracts totaling more than 3 GW in Europe and, earlier this year, entered into an agreement to supply Cape Wind with 130 turbines.

Other manufacturers, such as Vestas, Mitsubishi Power Systems and Nordex, have focused on retrenching and solidify their U.S. positions.

In an interview with Bloomberg, Vestas CEO Ditlev Engel said the company will expand its U.S. head count to 4,000 from about 2,300, primarily for its four Colorado-based plants.

Vestas has spent more than $1 billion building four factories in Colorado to replace turbine imports in the U.S. This year, Vestas opened a nacelle-manufacturing plant in Brighton. It also built the world's largest tower factory in Pueblo and added to its blade-manufacturing plant in Windsor. Another blade plant is due to open next year in Brighton. Vestas said it will eliminate 3,000 jobs in Europe.

Although Mitsubishi Power Systems also has a presence in China, it is focusing on the U.S. market, even as market predictions suggest 2011 will be less than stellar, reports Paul Thompson, a director at Mitsubishi Power Systems Americas. For example, virtually all global sales are tied to the U.S. market.

"2011 will be a tough year for the industry," Thompson says. "Our order backlog is certainly not where you'd like it to be." However, he adds that 2011 looks to be on par with 2010, "maybe even a little better."

By virtue of it opening its first U.S. nacelle facility in Fort Smith, Ark., in October, Mitsubishi sees an opportunity to grab market share by lowering its cost of goods. By locating manufacturing in the U.S., Thompson explains, Mitsubishi is not subject to the pricing challenges that come with a weakening dollar.

"If you look at the exchange rate two years ago, it was roughly 120 yen to the dollar. It is now roughly 85 yen to the dollar," Thompson says. "So, solely based upon the exchange rate, imported goods from Japan today cost 40 percent more than they used to, in terms of dollars. By manufacturing in the U.S., we can avoid the currency exchange risk. The same argument applies to the rest of the supply chain, such as gearboxes, controls, towers and blades."

Nordex is another manufacturer counting on the U.S. market.

"No one doubts that the U.S. wind market will see a downturn next year in the absence of green-light policies that give investors the confidence they need to finance projects. In fact, China is the only market where we see level growth," said Thomas Richterich, CEO at Nordex SE in a statement to *NAW*.

However, despite the current downturn, he said, the U.S. will be a key growth market for Nordex, adding that the company is competitively positioned in the U.S. market.

"With our new manufacturing plant in Jonesboro and our localization strategy, we are in a good position to increase market share, even during tough times, and our performance this year seems to validate this view," said Richterich.

Nordex says new orders in the U.S. grew six-fold in the first nine months, and the company expects an increase in new installations from 17.5 MW in 2009 to more than 150 MW in 2010.

Langhorne, Pa.-based turbine maker Gamesa says long-term agreements with the U.S. subsidiary of its major shareholder Iberdrola and key accounts, as well as developments in the Mexican market, will help limit exposure.

Gamesa has been refocusing its U.S. operations over the past year. Although the company would not reveal numbers related to its order book, the expected slowdown in the U.S. has not diminished the company's outlook. "Gamesa is bullish on the U.S. market for the long term," explains Dirk Mat-

thys, chairman and CEO for Gamesa's North American unit.

"In difficult times, you need to prepare," Matthys says, adding that although power purchase agreements (PPAs) have been difficult for Gamesa's customers to obtain – which have an effect on the amount of turbines ordered – the company is looking at ways to be creative to weather the storm. For example, Gamesa is exporting U.S.-built turbines to Honduras, supported by the Export-Import Bank of the United States.

Although it has enjoyed a resurgence in the Indian market, turbine manufacturer Suzlon has already been affected by the U.S. slowdown. In November, the company laid off 110 workers at its Pipestone, Minn., plant. The company's rotor-blade manufacturing facility was commissioned in 2006 and once employed 500 people. The U.S. represents the core market for Suzlon outside of India.

"In 2011, if you look at the major players, such as Iberdrola and MidAmerican Energy, many of those players are planning fewer developments," admits Andris Cukers, president of Suzlon North America.

At its peak, the U.S. represented 20% of Suzlon's business, Cukers says. But things are changing. "India is booming," he says. "We also see South America breaking through in places such as Chile and Brazil."

So, as the U.S. turbine market slows, could that mean that wind developers stand to benefit from a buyer's market? Maybe so. However, Shreve warns that it may be overly simplistic to suggest that wind developers could benefit from increased competition.

"Developers definitely stand to benefit from enhanced competition," Shreve explains, especially considering how turbine prices have dropped. "However, it is a double-edged sword, as the drop in electricity demand also reduces the availability of PPAs, and as such, power pricing is down. That lower power pricing negatively impacts projects' individual rate of return, so developers could suffer as projects get postponed due to unfavorable economics." NP

PEOPLE

Bergman Joins Deutsche Bank

Adam Bergman has joined Deutsche Bank as a director in the firm's global cleantech corporate coverage group. Bergman is based in San Francisco and reports to Chris Colpitts, global head of technology corporate coverage.

Bergman's appointment is part of a broad initiative to increase clean technology coverage capabilities across multiple sectors, including the technology, industrial, energy and consumer sectors, according to Deutsche.

Bergman was most recently a senior vice president in the cleantech group at Jefferies & Co., leading that institution's West Coast and Israel cleantech banking efforts.

Sara Eisenstat Joins GCube Insurance

GCube Insurance Services Inc., a global insurer of renewable energy technologies, has appointed Sara Eisenstat vice president.

Eisenstat will be responsible for product development and new business growth initiatives targeted at the company's renewable energy offerings. Ultimately, she will attain underwriting authority for a number of key product areas for the organization.

For the past three years, she has worked in the environmental division of Chartis/AIG, where she most recently was assistant vice president for product development.

Previously, Eisenstat worked at ICF Consulting, where she wrote environmental-impact statements for the Missile Defense Agency and the Federal Aviation Administration.

Westwood Adds Staff To Wind Group

Westwood Professional Services Inc., a national land and energy development consultant, has announced that Steve Battaglia has joined the firm's wind energy engineering group.

Battaglia's road-design and construction-observation experience will contribute to Westwood's involvement in wind project planning, design and construction, according to the company. He will assist in the design of wind turbine access roads, crane paths, laydown yards, traffic-control plans, existing road-condition plans and drainage studies for projects throughout the country.

Kyle Rush Joins Trans-United

Kyle Rush has joined Trans-United Inc., a specialized hauling company that serves the wind industry, as account manager. He will cover northcentral Indiana and southwestern Michigan and concentrate on the transportation of wind energy components.

Michael Toke Named Cannon Power CEO

Cannon Power Group has named Michael Toke CEO. He served as senior vice president and general counsel for the company for eight years and has over 13 years of experience in the wind energy industry.

Before joining the company in 2001, Toke was affiliated with several major law firms, where he specialized in energy law and project and corporate finance.

Cannon Power Group developed the Windy Point/Windy Flats project in Washington.

Pioneer Wind Names President

Pioneer Power Solutions Inc., a manufacturer of electrical equipment for utility, industrial, commercial and wind energy applications, has appointed Daniel Charette president of its subsidiary, Pioneer Wind Energy Systems Inc.

Charette was previously vice president of sales and business development of AAER Inc., a company acquired by Pioneer in August and now doing business as Pioneer Wind Energy Systems.

In his new role, Charette will focus primarily on expanding the company's sales and distribution network, contracting new community wind projects and completing existing proposals undertaken by AAER prior to its acquisition by Pioneer Power Solutions.

While at AAER, Charette helped expand the company's sales channels and geographical reach, resulting in the deployment of the company's first